

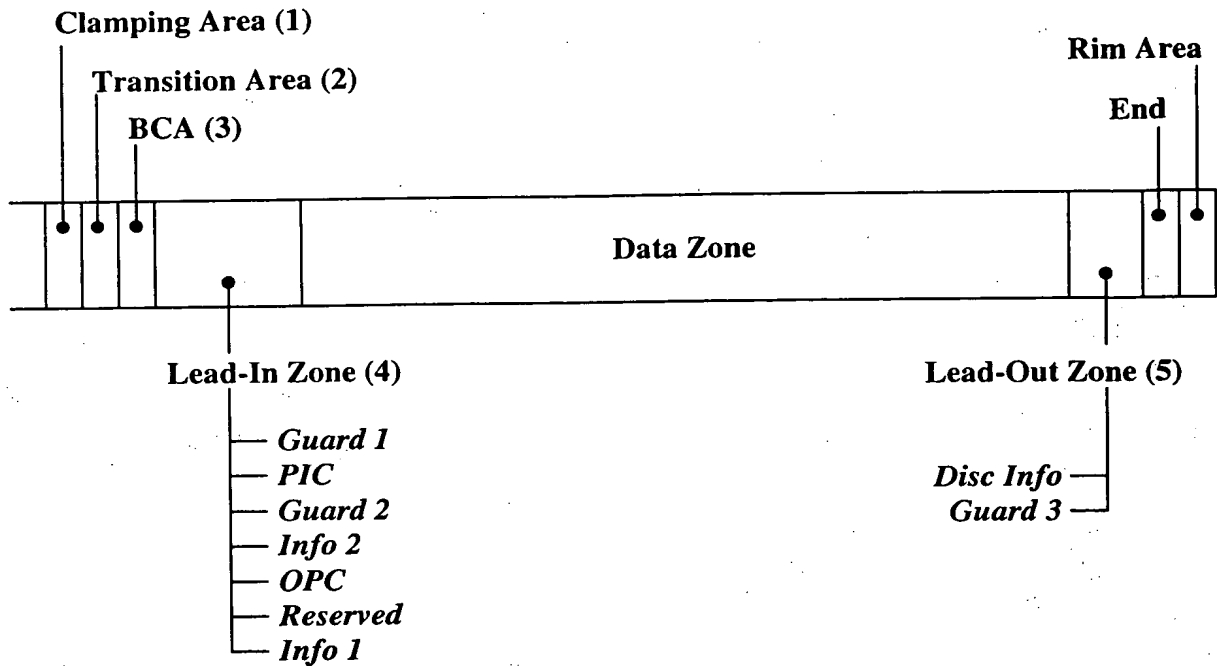
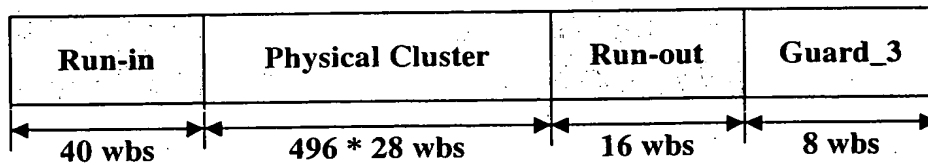
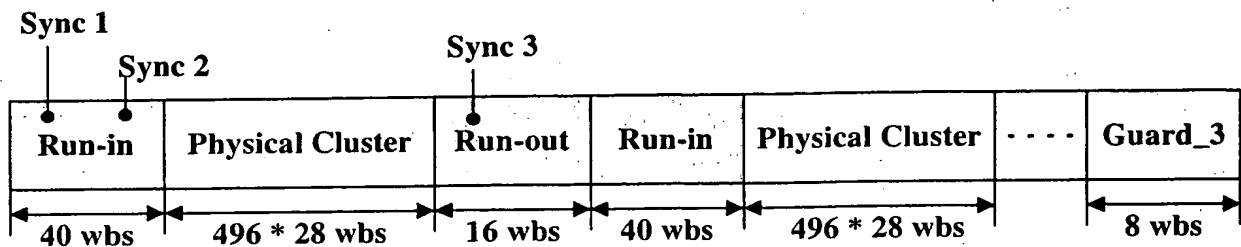
FIG. 1A**FIG. 1B***Single written Recording Unit Block (RUB)***FIG. 1C***Continuously written sequence of Recording Unit Blocks*

FIG. 1D

| Run-In | Physical Cluster | Run-Out | Run-In |
|---------------------|---|---------------------|---------------------|
| 2760 Channel Bit | 958272 Channel Bit (Recodring Frames #0 - #30) | 1104 Channel Bit | 2760 Channel Bit |

| Frame Number | Frame Sync | Frame Number | Frame Sync |
|--------------|------------|--------------|------------|
| Frame #0 | FS 0 | Frame #16 | FS 5 |
| Frame #1 | FS 1 | Frame #17 | FS 3 |
| Frame #2 | FS 2 | Frame #18 | FS 2 |
| Frame #3 | FS 3 | Frame #19 | FS 2 |
| Frame #4 | FS 3 | Frame #20 | FS 5 |
| Frame #5 | FS 1 | Frame #21 | FS 6 |
| Frame #6 | FS 4 | Frame #22 | FS 5 |
| Frame #7 | FS 1 | Frame #23 | FS 1 |
| Frame #8 | FS 5 | Frame #24 | FS 1 |
| Frame #9 | FS 5 | Frame #25 | FS 6 |
| Frame #10 | FS 4 | Frame #26 | FS 2 |
| Frame #11 | FS 3 | Frame #27 | FS 6 |
| Frame #12 | FS 4 | Frame #28 | FS 4 |
| Frame #13 | FS 6 | Frame #29 | FS 4 |
| Frame #14 | FS 6 | Frame #30 | FS 2 |
| Frame #15 | FS 3 | | |

FIG. 1E

| Sync Number | 24-bit sync body | 6-bit sync ID |
|-------------|--------------------------------|---------------|
| FS 0 | 01 010 000 000 010 000 000 010 | 000 001 |
| FS 1 | 01 010 000 000 010 000 000 010 | 010 010 |
| FS 2 | 01 010 000 000 010 000 000 010 | 101 000 |
| FS 3 | 01 010 000 000 010 000 000 010 | 100 001 |
| FS 4 | 01 010 000 000 010 000 000 010 | 000 100 |
| FS 5 | 01 010 000 000 010 000 000 010 | 001 001 |
| FS 6 | 01 010 000 000 010 000 000 010 | 010 000 |

FIG. 2A

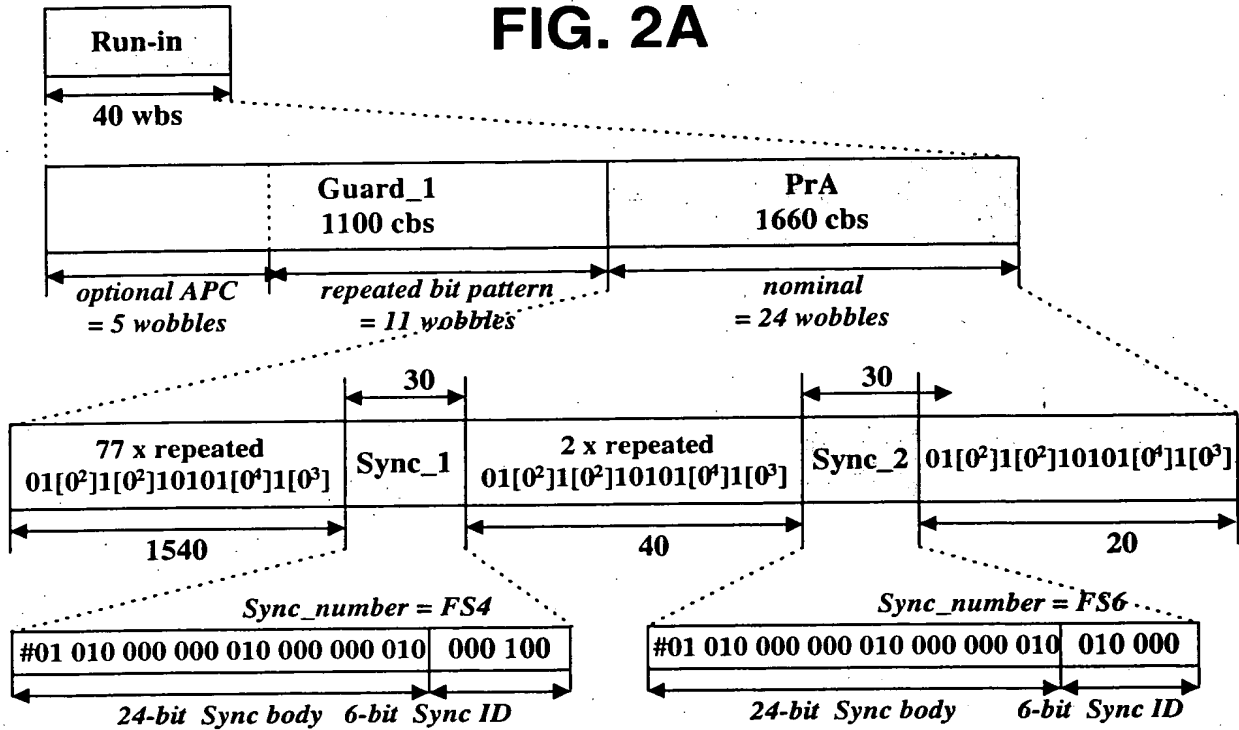


FIG. 2B

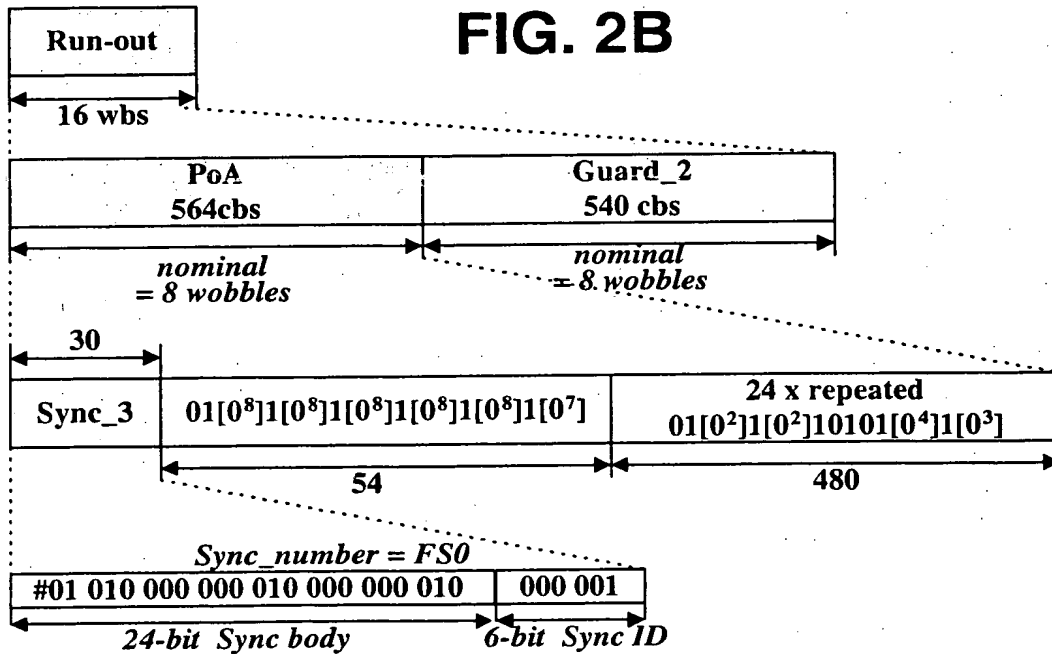


FIG. 3A

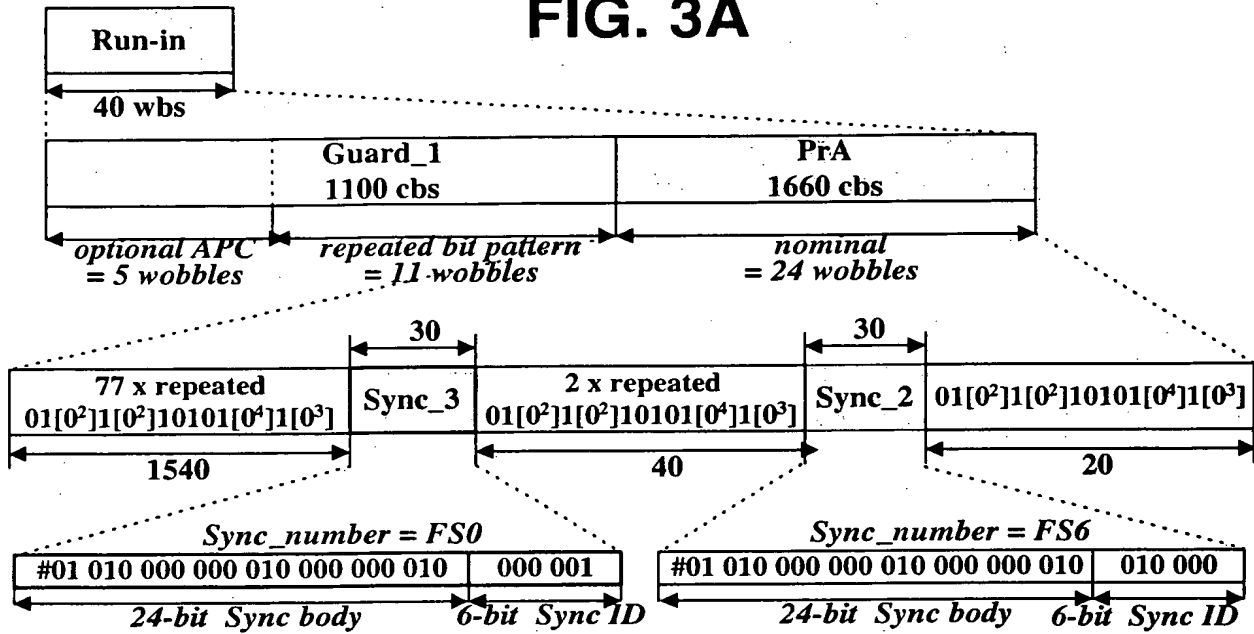


FIG. 3B

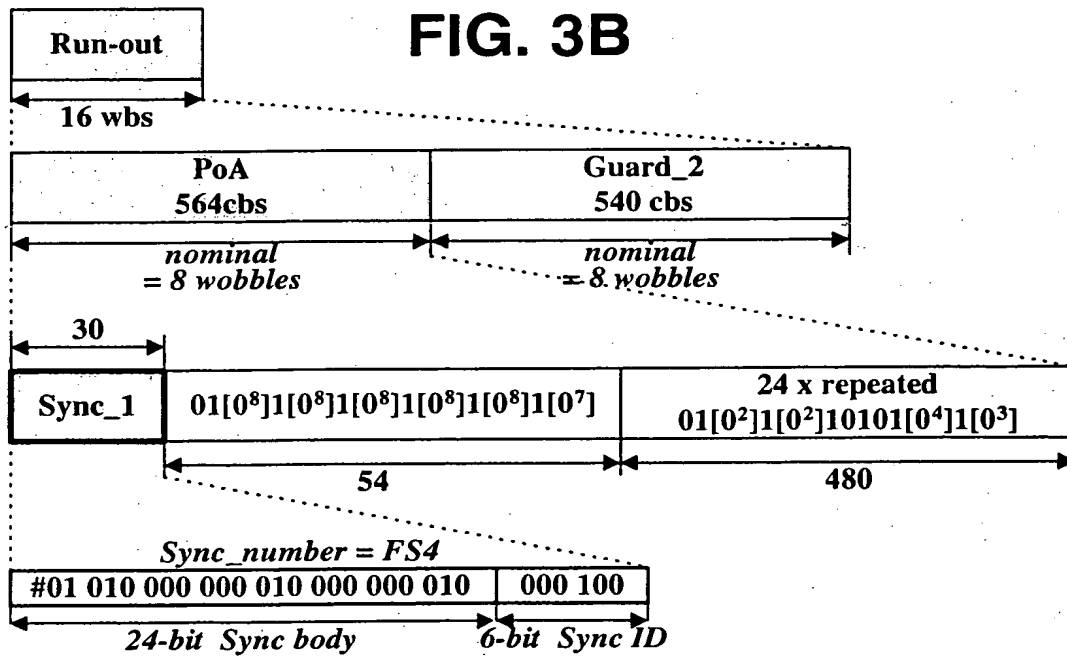


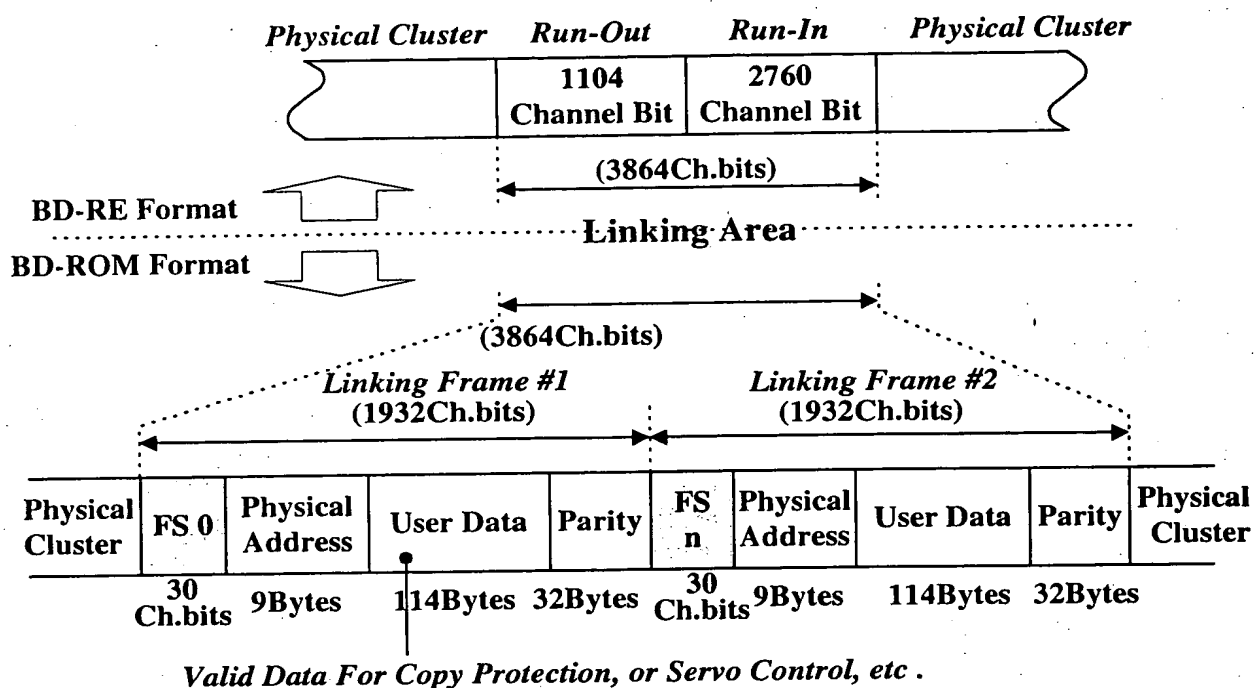
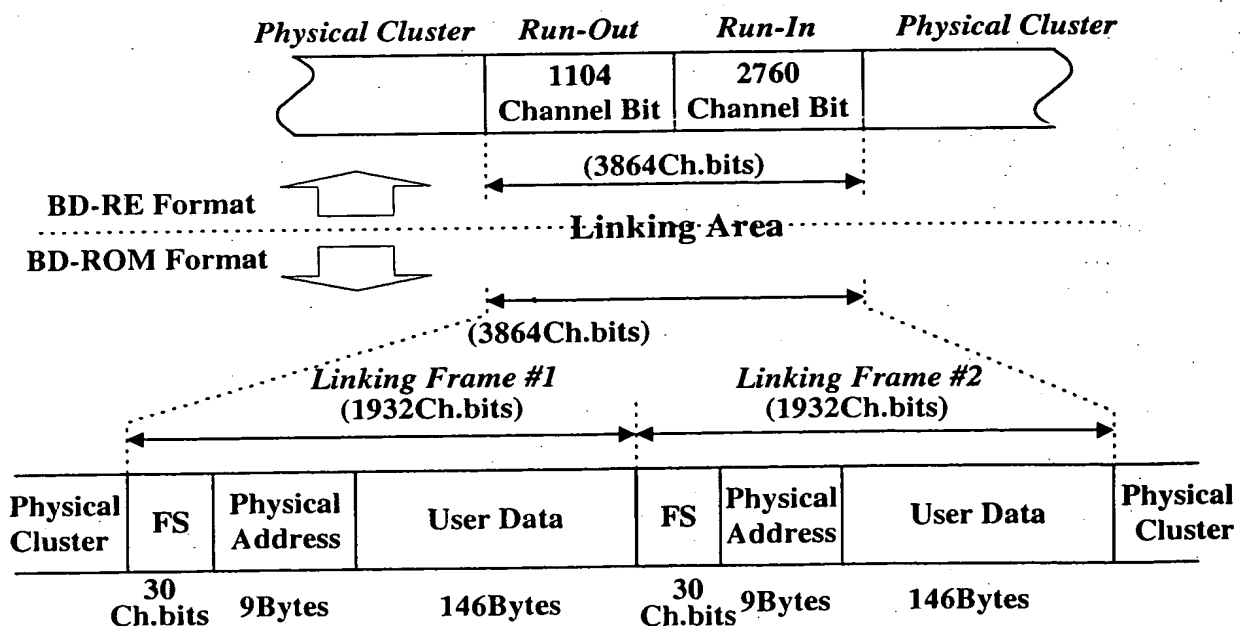
FIG. 4A**FIG. 4B**

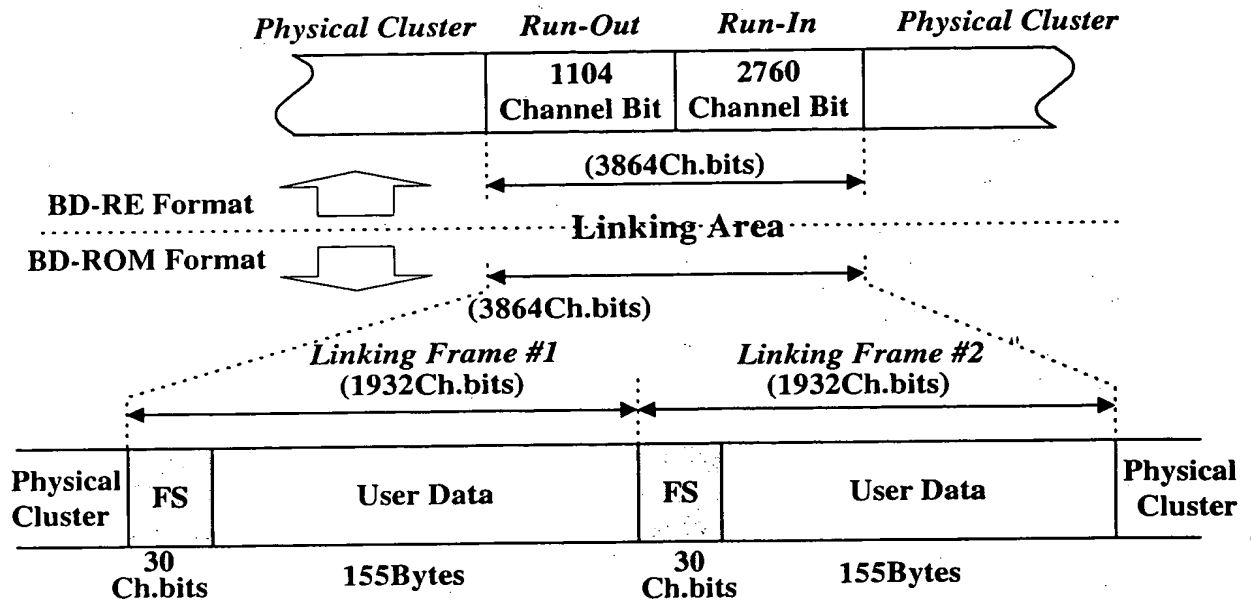
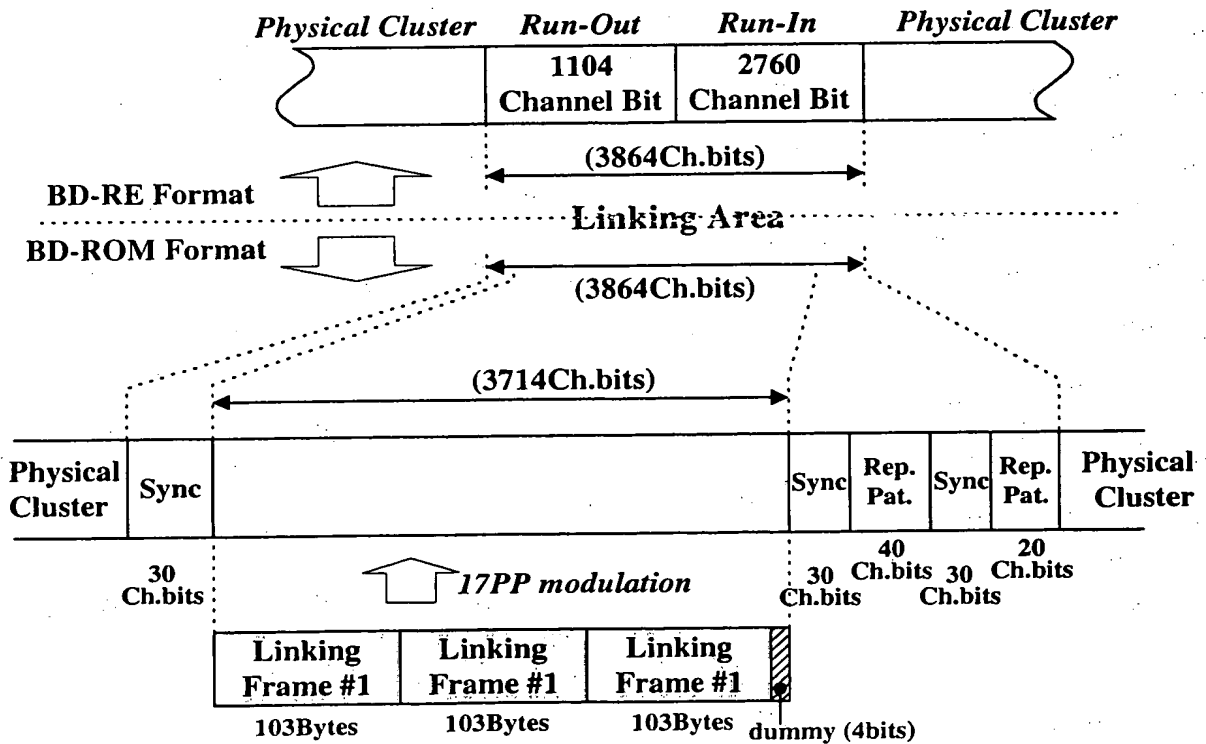
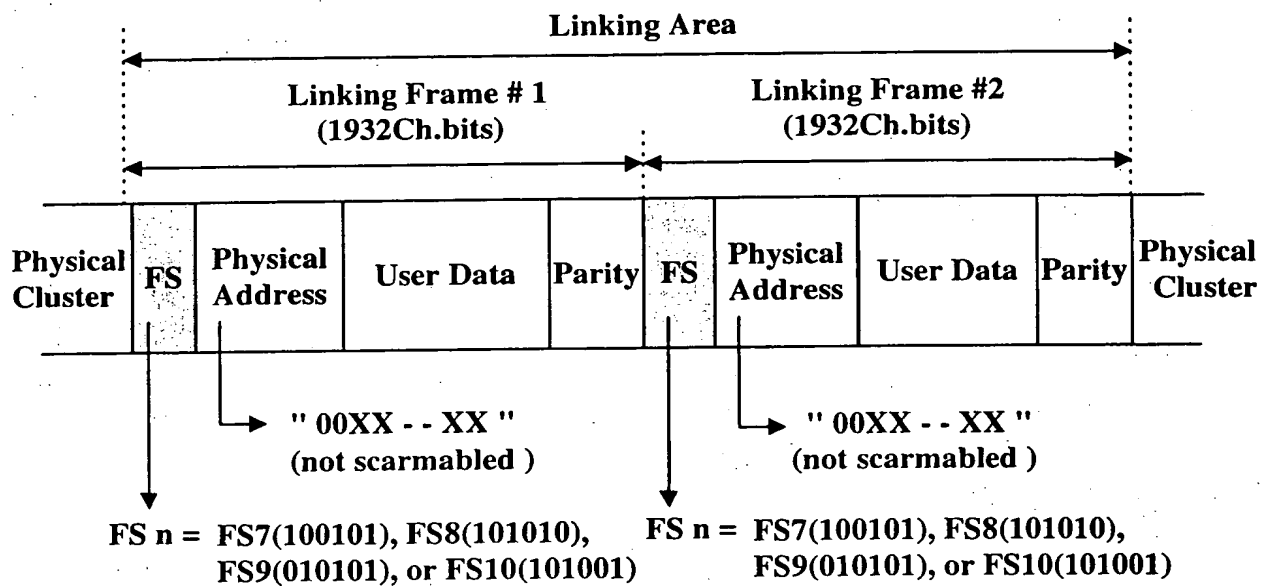
FIG. 4C**FIG. 4D**

FIG. 5

| | | |
|-------------------|--------------------------------|--|
| <i>FS n (new)</i> | 01 010 000 000 010 000 000 010 | <i>FS 7 : 100 101</i> <i>FS 8 : 101 010</i> <i>FS 9 : 010 101</i> <i>FS 10: 101 001</i> |
|-------------------|--------------------------------|--|

FIG. 6A**FIG. 6B**

| | Case 1 | Case 2 | Case 3 | Case 4 |
|--------------|------------|-------------|---------------------|-------------|
| FS #1 | FS0 | FS0 | FS7, 8, or 9 | FS10 |
| FS #2 | FS7 | FS10 | FS7, 8, or 9 | FS10 |

FIG. 7A

Sync 1 : FS0, Sync 2 : FS7

| Frame n | Frame n-1 | Frame n-2 | Frame n-3 | Frame Number | |
|---------|-----------|-----------|-----------|--------------|-------|
| FS0 | FS7 | FS0 | FS2 | 0 | → (1) |
| FS0 | FS2 | FS4 | FS4 | 0 | → (2) |
| FS0 | FS2 | FS4 | FS4 | 31 | |
| FS1 | FS0 | FS7/FS2 | FS0/FS4 | 1 | → (3) |
| FS1 | FS3 | FS3 | FS2 | 5 | |
| FS1 | FS4 | FS1 | FS3 | 7 | |
| FS1 | FS5 | FS6 | FS5 | 23 | |
| FS1 | FS1 | FS5 | FS6 | 24 | |
| FS2 | FS1 | FS0 | FS7/FS2 | 2 | → (4) |
| FS2 | FS3 | FS5 | FS3 | 18 | |
| FS2 | FS2 | FS3 | FS5 | 19 | |
| FS2 | FS6 | FS1 | FS1 | 26 | |
| FS2 | FS4 | FS4 | FS6 | 30 | |
| FS3 | FS2 | FS1 | FS0 | 3 | |
| FS3 | FS3 | FS2 | FS1 | 4 | |
| FS3 | FS4 | FS5 | FS5 | 11 | |
| FS3 | FS6 | FS6 | FS4 | 15 | |
| FS3 | FS5 | FS3 | FS6 | 17 | |
| FS4 | FS1 | FS3 | FS3 | 6 | |
| FS4 | FS5 | FS5 | FS1 | 10 | |
| FS4 | FS3 | FS4 | FS5 | 12 | |
| FS4 | FS6 | FS2 | FS6 | 28 | |
| FS4 | FS5 | FS3 | FS6 | 29 | |
| FS5 | FS1 | FS4 | FS1 | 8 | |
| FS5 | FS5 | FS1 | FS4 | 9 | |
| FS5 | FS3 | FS6 | FS6 | 26 | |
| FS5 | FS2 | FS2 | FS3 | 20 | |
| FS5 | FS6 | FS5 | FS2 | 22 | |
| FS6 | FS4 | FS3 | FS4 | 13 | |
| FS6 | FS6 | FS4 | FS3 | 14 | |
| FS6 | FS5 | FS2 | FS2 | 21 | |
| FS6 | FS1 | FS1 | FS5 | 25 | |
| FS6 | FS2 | FS6 | FS1 | 27 | |
| FS7 | FS0 | 2 | FS4 | 32 | |

- (1) : Frame Number 0 for the 1st AUN(Address Unit) of RUB
 (2) : Frame Number 0 for the the Middle AUN(Address Unit) of RUB
 (3) : Frame Number 1 (1st AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)
 (4) : Frame Number 2 (1st AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)

FIG. 7B

Sync 1 : FS7, Sync 2 : FS7

| Frame n | Frame n-1 | Frame n-2 | Frame n-3 | Frame Number | |
|---------|-----------|-----------|-----------|--------------|-------|
| FS0 | FS7/FS2 | FS7/FS4 | FS2/FS4 | 0 | → (1) |
| FS1 | FS0 | FS7/FS2 | FS7/FS4 | 1 | → (2) |
| FS1 | FS3 | FS3 | FS2 | 5 | |
| FS1 | FS4 | FS1 | FS3 | 7 | |
| FS1 | FS5 | FS6 | FS5 | 23 | |
| FS1 | FS1 | FS5 | FS6 | 24 | |
| FS2 | FS1 | FS0 | FS7/FS2 | 2 | → (3) |
| FS2 | FS3 | FS5 | FS3 | 18 | |
| FS2 | FS2 | FS3 | FS5 | 19 | |
| FS2 | FS6 | FS1 | FS1 | 26 | |
| FS2 | FS4 | FS4 | FS6 | 30 | |
| FS3 | FS2 | FS1 | FS0 | 3 | |
| FS3 | FS3 | FS2 | FS1 | 4 | |
| FS3 | FS4 | FS5 | FS5 | 11 | |
| FS3 | FS6 | FS6 | FS4 | 15 | |
| FS3 | FS5 | FS3 | FS6 | 17 | |
| FS4 | FS1 | FS3 | FS3 | 6 | |
| FS4 | FS5 | FS5 | FS1 | 10 | |
| FS4 | FS3 | FS4 | FS5 | 12 | |
| FS4 | FS6 | FS2 | FS6 | 28 | |
| FS4 | FS5 | FS3 | FS6 | 29 | |
| FS5 | FS1 | FS4 | FS1 | 8 | |
| FS5 | FS5 | FS1 | FS4 | 9 | |
| FS5 | FS3 | FS6 | FS6 | 26 | |
| FS5 | FS2 | FS2 | FS3 | 20 | |
| FS5 | FS6 | FS5 | FS2 | 22 | |
| FS6 | FS4 | FS3 | FS4 | 13 | |
| FS6 | FS6 | FS4 | FS3 | 14 | |
| FS6 | FS5 | FS2 | FS2 | 21 | |
| FS6 | FS1 | FS1 | FS5 | 25 | |
| FS6 | FS2 | FS6 | FS1 | 27 | |
| FS7 | FS2 | FS4 | FS4 | 31 | |
| FS7 | FS7 | FS2 | FS4 | 32 | |

- (1) : Frame Number 0 (1st AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)
 (2) : Frame Number 1 (1st AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)
 (3) : Frame Number 2 (1st AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)

FIG. 7C

Sync 1 : FS7, Sync 2 : FS8

| Frame n | Frame n-1 | Frame n-2 | Frame n-3 | Frame Number | |
|---------|-----------|-----------|-----------|--------------|-------|
| FS0 | FS8/FS2 | FS7/FS4 | FS2/FS4 | 0 | → (1) |
| FS1 | FS0 | FS8/FS2 | FS7/FS4 | 1 | → (2) |
| FS1 | FS3 | FS3 | FS2 | 5 | |
| FS1 | FS4 | FS1 | FS3 | 7 | |
| FS1 | FS5 | FS6 | FS5 | 23 | |
| FS1 | FS1 | FS5 | FS6 | 24 | |
| FS2 | FS1 | FS0 | FS7/FS2 | 2 | → (3) |
| FS2 | FS3 | FS5 | FS3 | 18 | |
| FS2 | FS2 | FS3 | FS5 | 19 | |
| FS2 | FS6 | FS1 | FS1 | 26 | |
| FS2 | FS4 | FS4 | FS6 | 30 | |
| FS3 | FS2 | FS1 | FS0 | 3 | |
| FS3 | FS3 | FS2 | FS1 | 4 | |
| FS3 | FS4 | FS5 | FS5 | 11 | |
| FS3 | FS6 | FS6 | FS4 | 15 | |
| FS3 | FS5 | FS3 | FS6 | 17 | |
| FS4 | FS1 | FS3 | FS3 | 6 | |
| FS4 | FS5 | FS5 | FS1 | 10 | |
| FS4 | FS3 | FS4 | FS5 | 12 | |
| FS4 | FS6 | FS2 | FS6 | 28 | |
| FS4 | FS5 | FS3 | FS6 | 29 | |
| FS5 | FS1 | FS4 | FS1 | 8 | |
| FS5 | FS5 | FS1 | FS4 | 9 | |
| FS5 | FS3 | FS6 | FS6 | 26 | |
| FS5 | FS2 | FS2 | FS3 | 20 | |
| FS5 | FS6 | FS5 | FS2 | 22 | |
| FS6 | FS4 | FS3 | FS4 | 13 | |
| FS6 | FS6 | FS4 | FS3 | 14 | |
| FS6 | FS5 | FS2 | FS2 | 21 | |
| FS6 | FS1 | FS1 | FS5 | 25 | |
| FS6 | FS2 | FS6 | FS1 | 27 | |
| FS7 | FS2 | FS4 | FS4 | 31 | |
| FS8 | FS7 | FS2 | FS4 | 32 | |

- (1) : Frame Number 0 (1st AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)
 (2) : Frame Number 1 (1st AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)
 (3) : Frame Number 2 (1st AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)

FIG. 7D*17PP modulation code conversion table*

| data bits | modulation bits | |
|-------------|-----------------|------------------------------------|
| 00 00 00 00 | 010 100 100 100 | |
| 00 00 10 00 | 000 100 100 100 | |
| 00 00 00 | 010 100 000 | |
| 00 00 01 | 010 100 100 | |
| 00 00 10 | 000 100 100 | |
| 00 00 11 | 000 100 | |
| 00 01 | 010 100 | |
| 00 10 | 010 000 | |
| 00 11 | 010 100 | |
| 01 | 010 | |
| 10 | 001 | |
| 11 | 000 | if preceding modulation bits = xx1 |
| | 101 | if preceding modulation bits = xx0 |

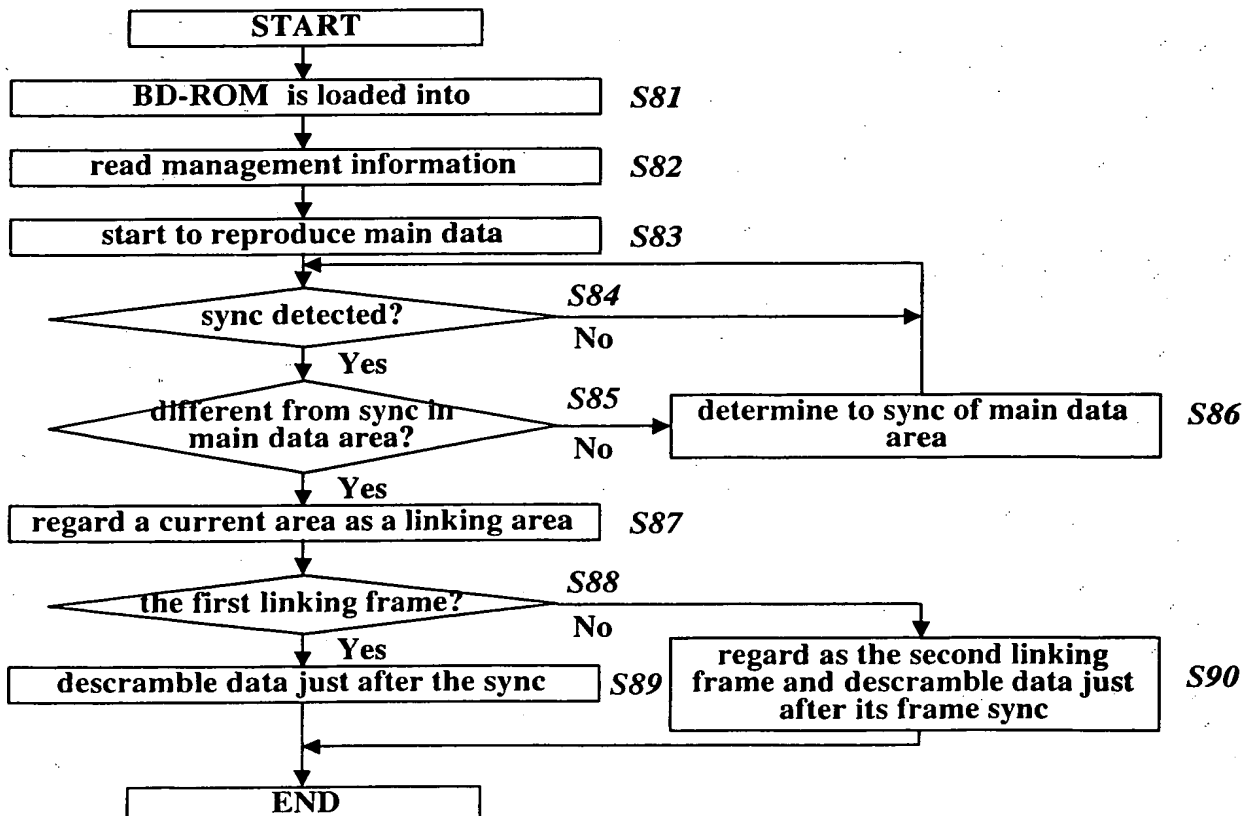
FIG. 8

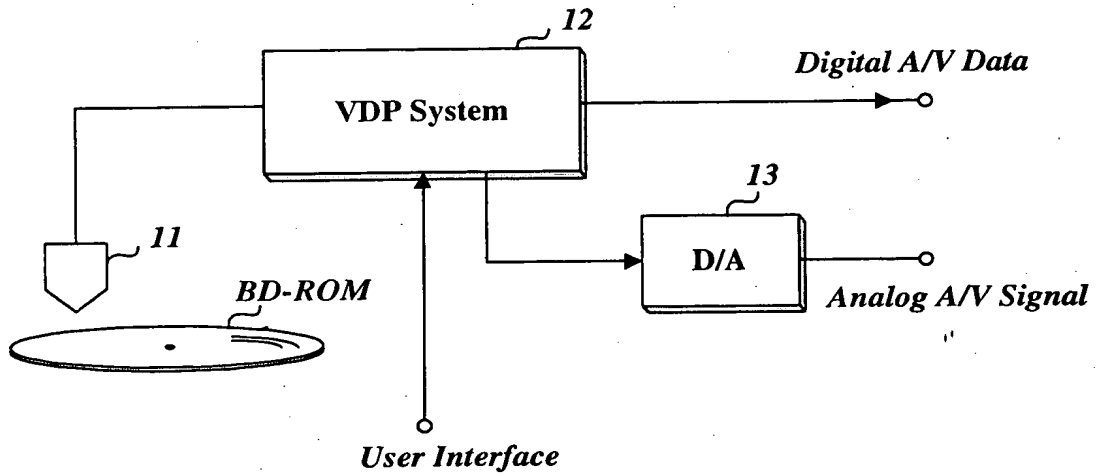
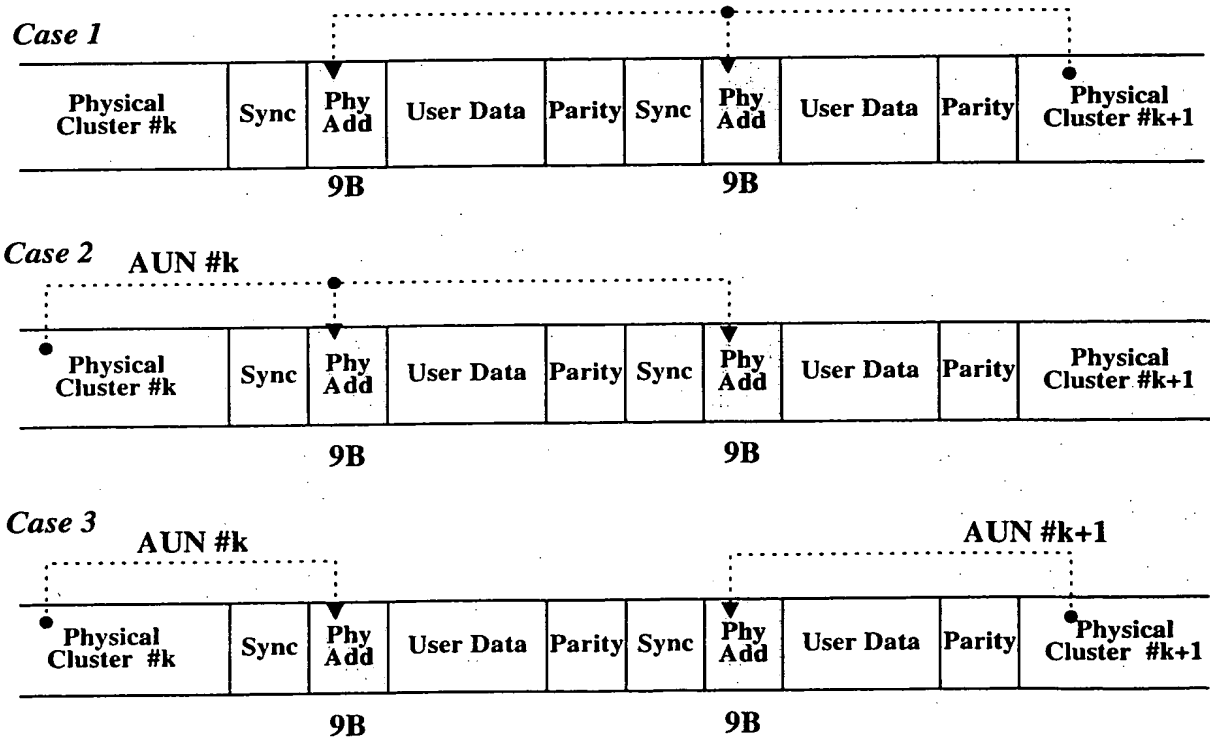
FIG. 9**FIG. 10A**

FIG. 10B

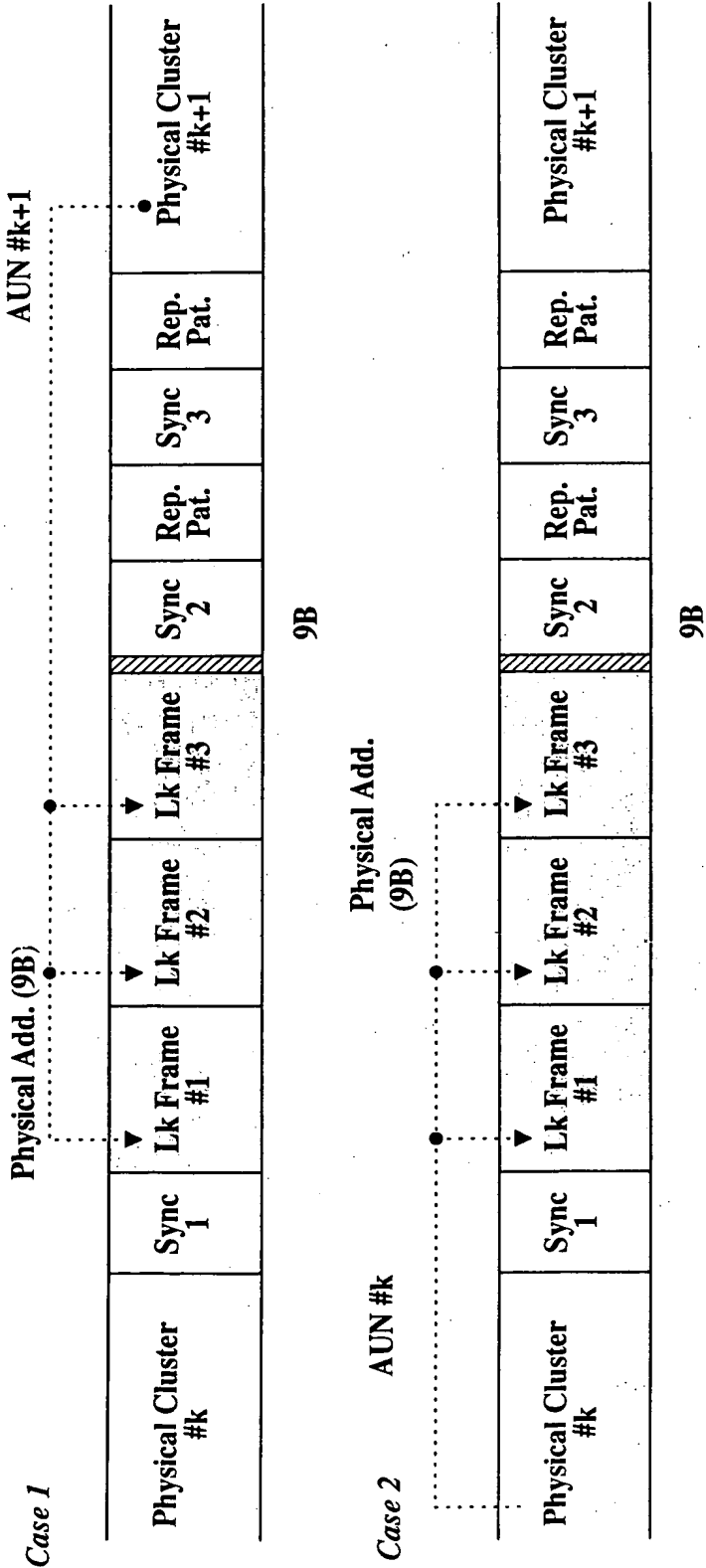


FIG. 10C

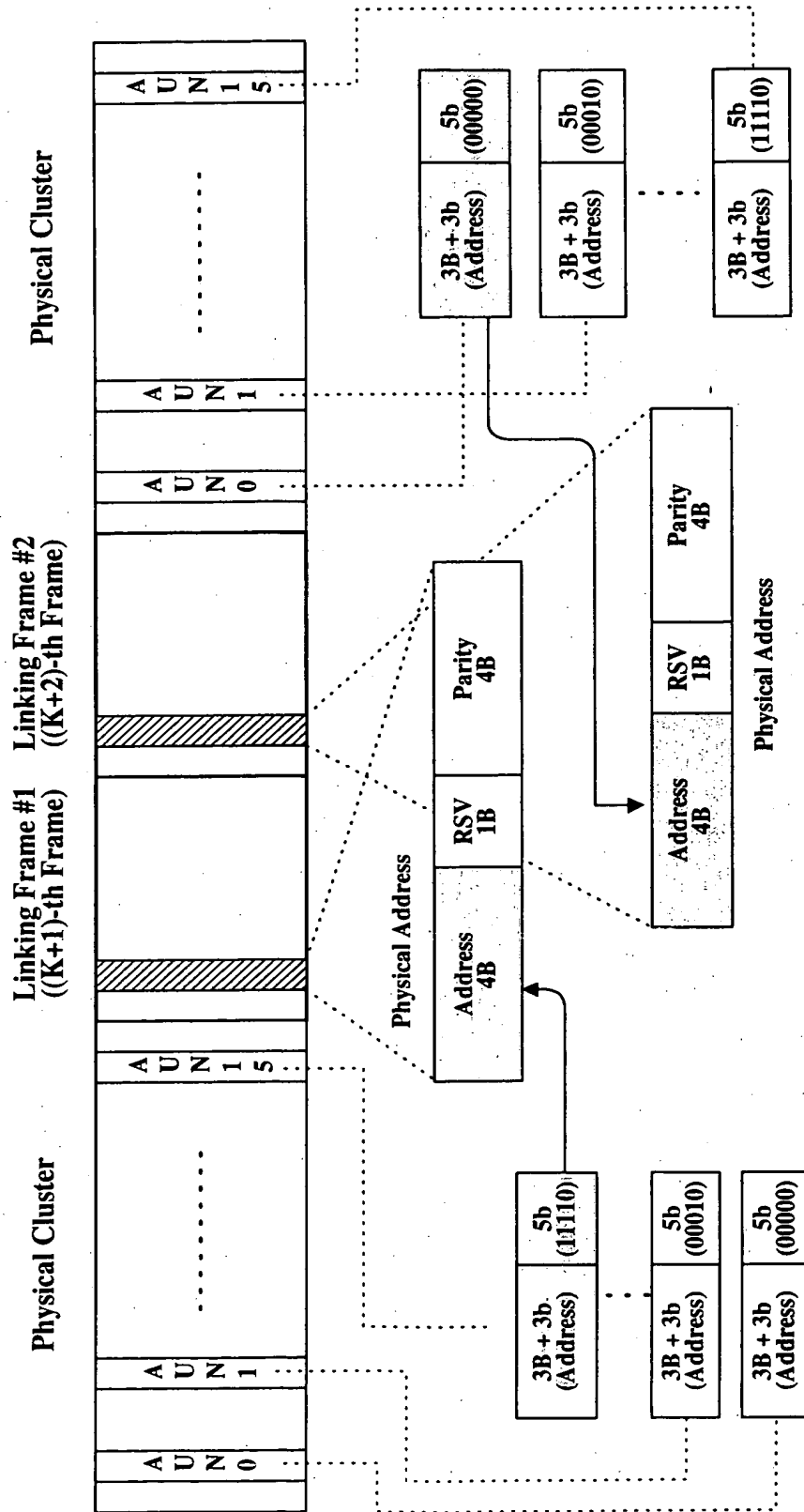


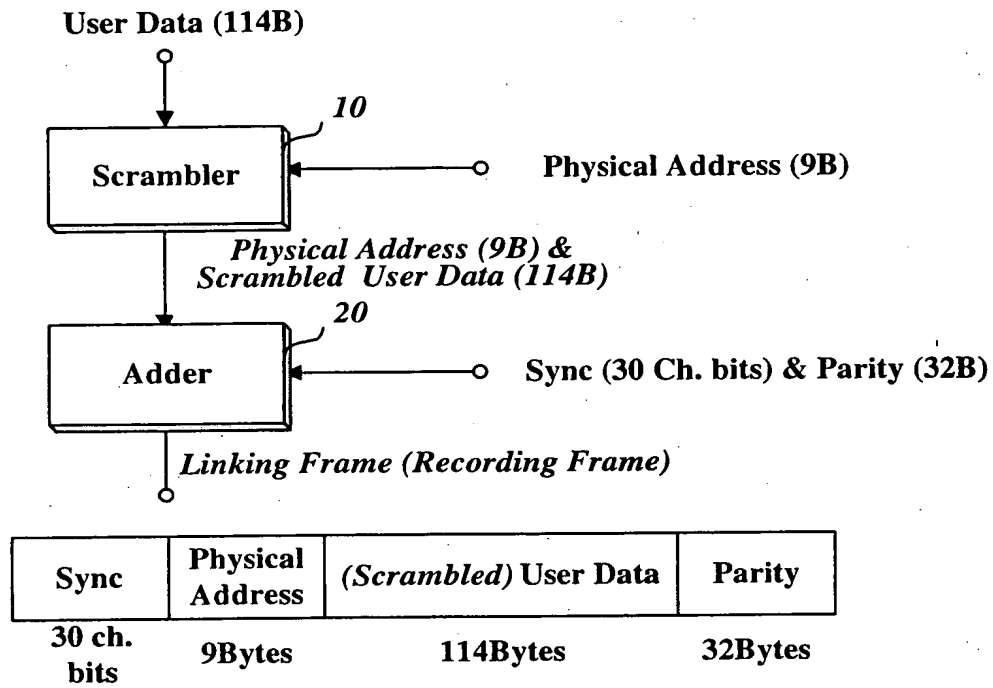
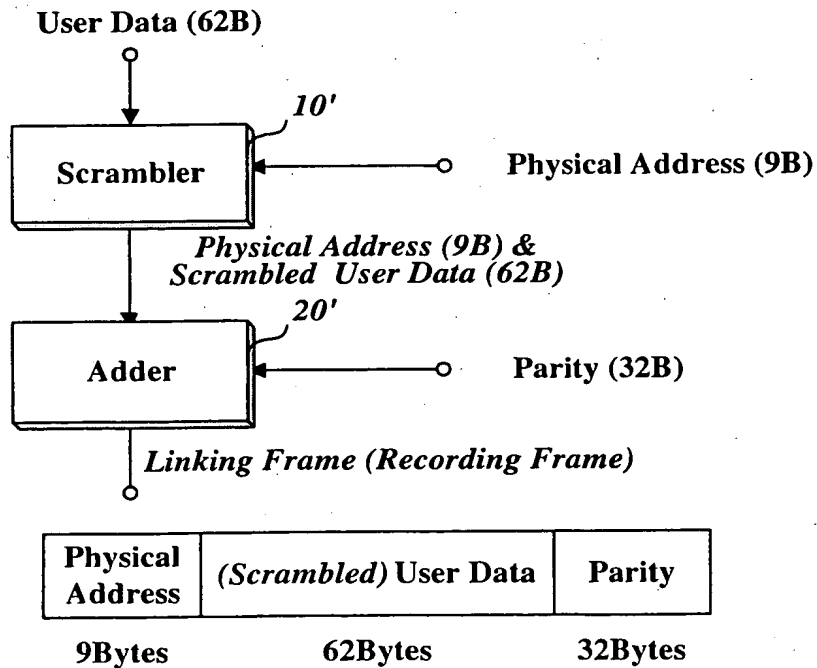
FIG. 11A**FIG. 11B**

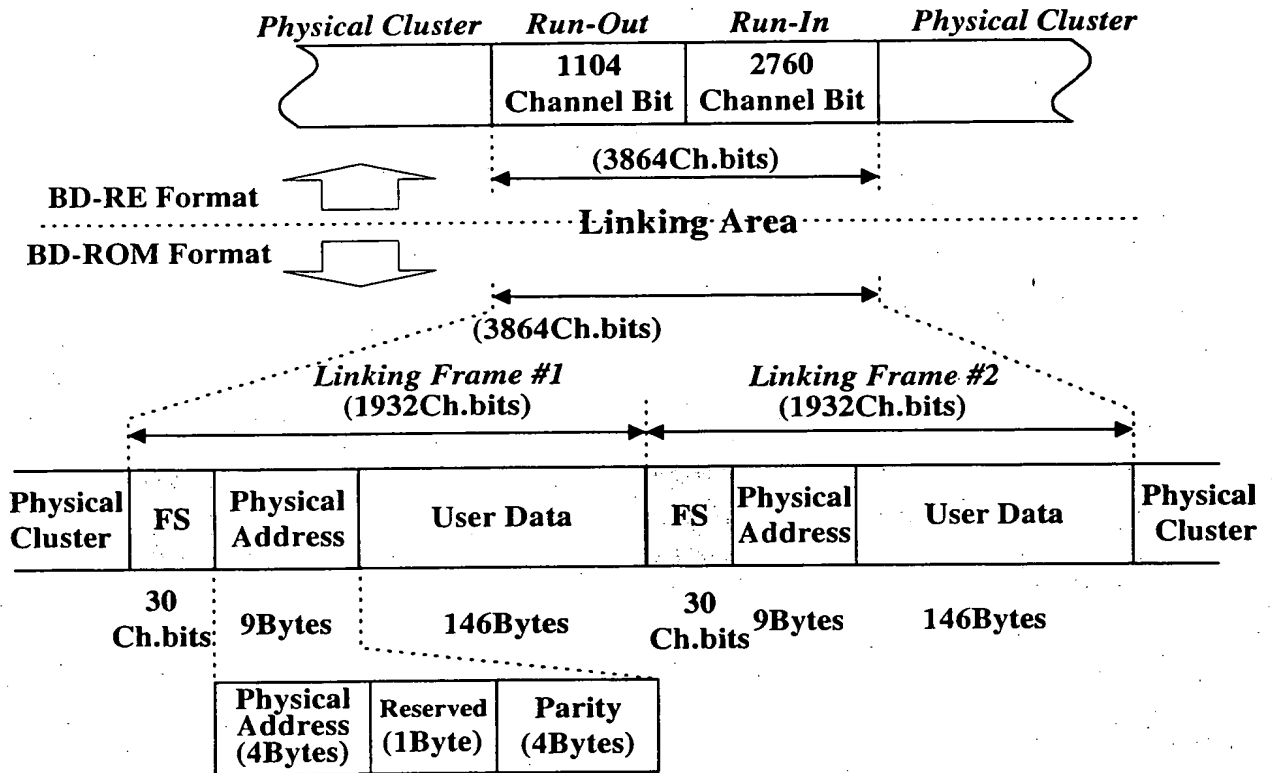
FIG. 12A

FIG. 12B

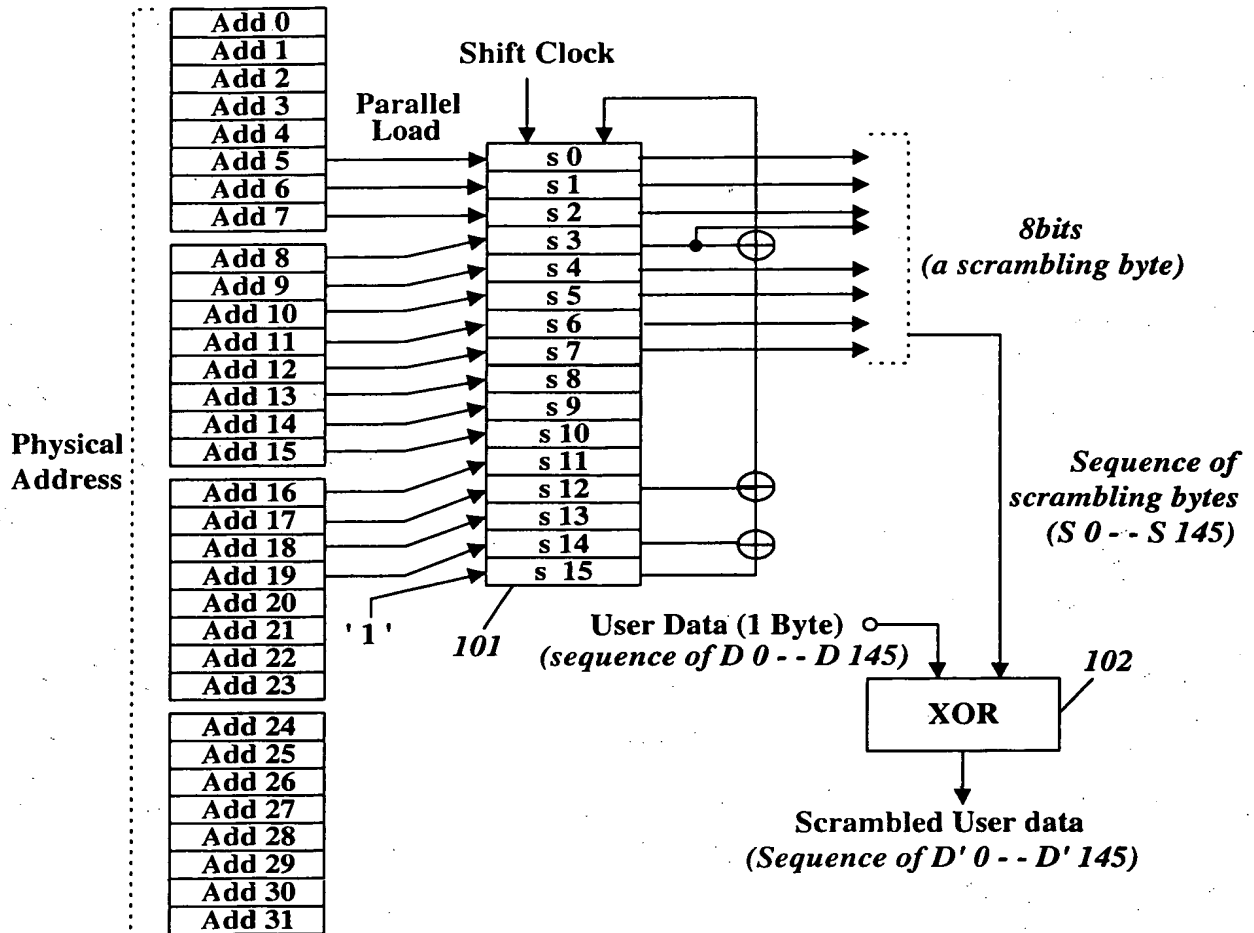


FIG. 13

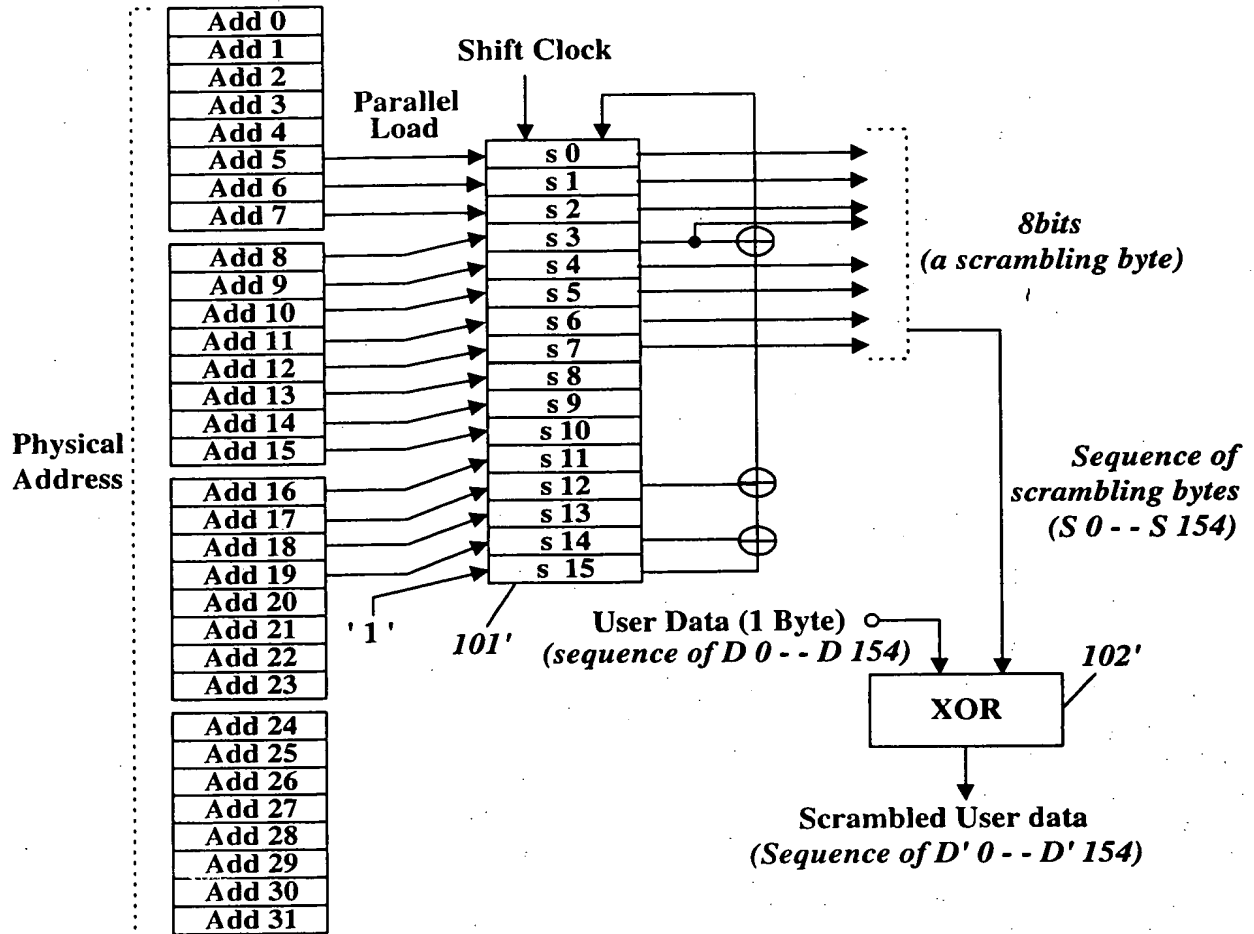


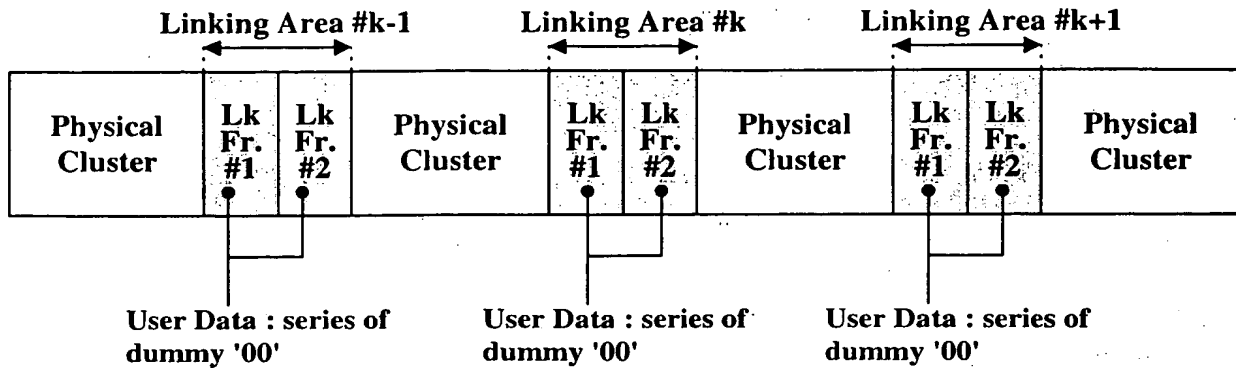
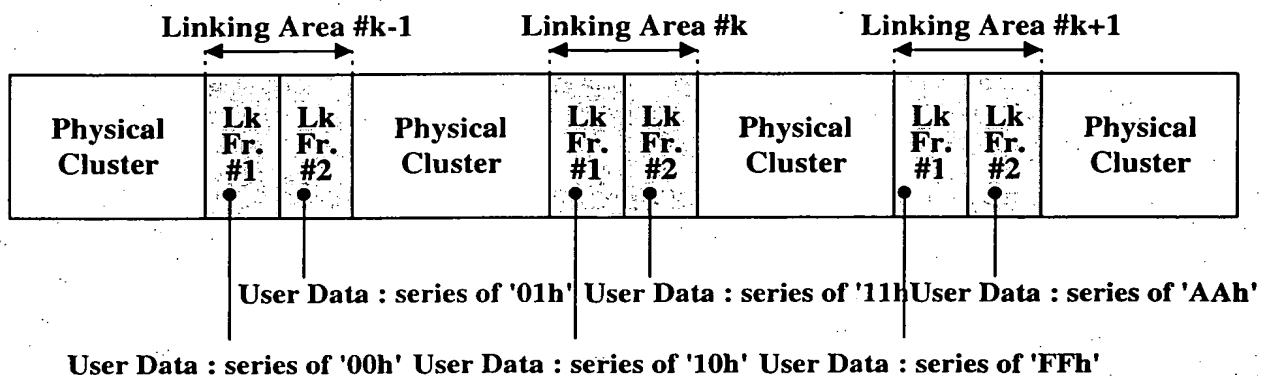
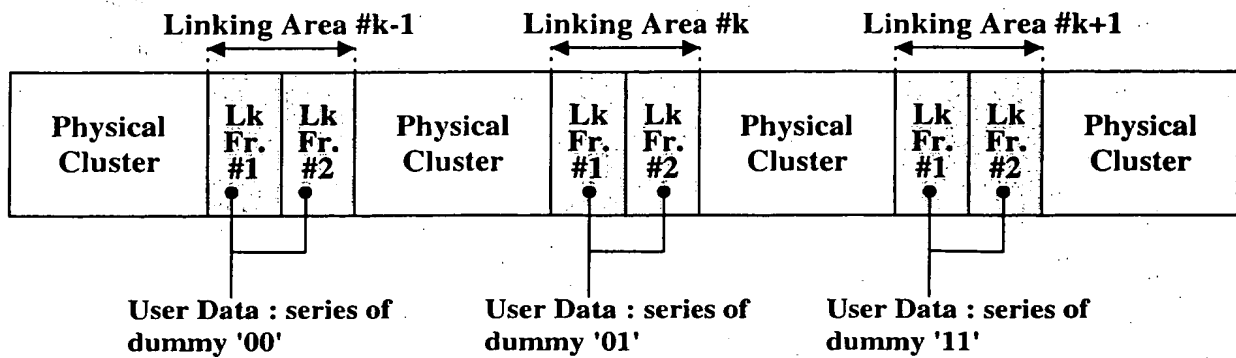
FIG. 14A**FIG. 14B****FIG. 14C**

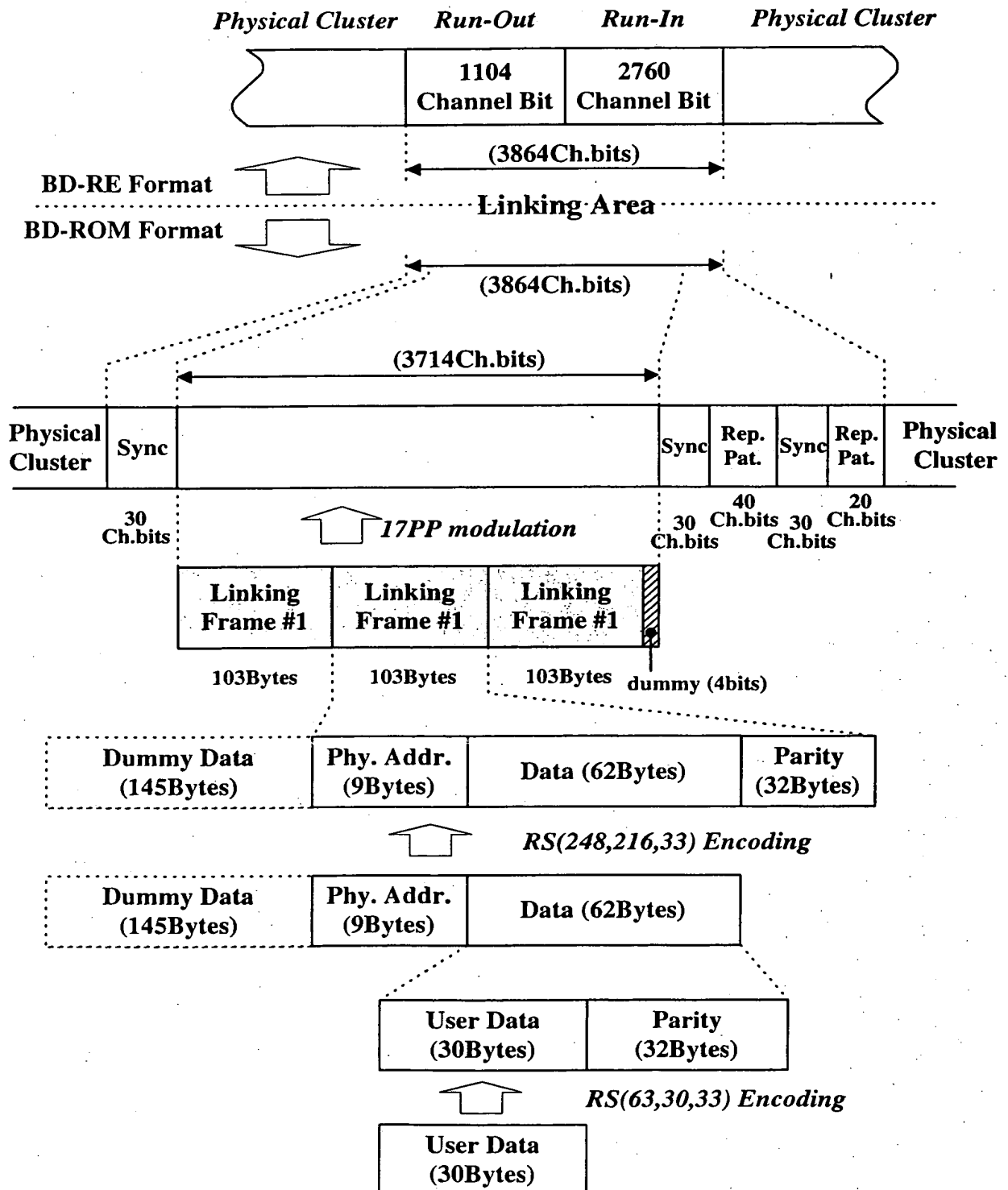
FIG. 15A

FIG. 15B

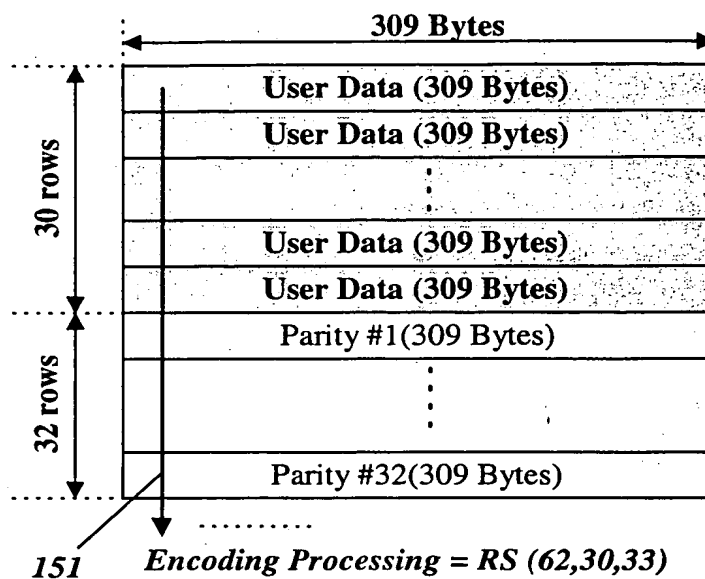


FIG. 15C

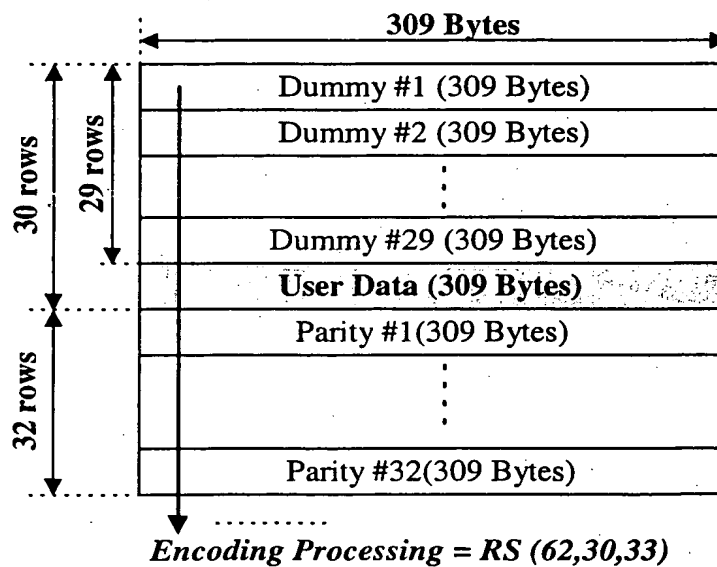


FIG. 16

